HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT DIVE: P4-091

MISSION STATUS

Location: Nihoa, NWHI

Latitude: 23°11.8188'

Longitude: 161°54.0459'

Mission Date: 9/5/2003

Duration: 8 h 0 min

Maximum Depth: 1225

Project Title: Canyon & Scavenger Communities of Main and Northwestern Hawaiian Islands

Principal Investigator: Craig Smith & Eric Vetter

Address: University of Hawaii, Dept of Oceanography
1000 Pope Rd, MSB 205
Honolulu, HI 96822

Phone: 808-956-7776

Observer 1: Ric Martini

Address:

Observer 2: Craig Smith

Address: same as above

Pilot 1: Chuck Holloway

Pilot 2:

Scientific Data Acquired: Prepare an abstract outlining your objectives, techniques, findings, etc.

Objectives:
- Dive to 1200 m in canyon and deploy and observe bait parcel for ½ h.
- Proceed to 1000 m and deploy and observe bait parcel for ½ h.
- Conduct video and visual surveys along 1000 m contour.
- Proceed to 650 m site in Canyon and recover scavenger trap.
- Collect core samples for macrofauna at 650 m site.

Dive started at 1225 m on rocky slope. We transited along the 1225 m contour to a sandy shelf and placed a 3 kg bait parcel on the seafloor. We observed scavengers feeding for 30 minutes, then moved up canyon to 981 m. There we implanted another 3 kg bait parcel, a baited trap, and observed shrimp, ray (Plesiobates daviesi) and synaphobranchid eels feeding on the bait. We then transited up slope about 1 mile to our 650 m sight, passing 2 huge (~200 m) walls, numerous sand channels and hundreds of fish of > 15 spp. (mostly as individuals) at the 650 m site. We recovered a scavenger trap full of shrimp and amphipods, and collected two sediment cores. We then surfaced.

Species list:	
Hydrolagus	Bathyopteros atricolor
Barbourusia rufa	Sladenia remiger
Plesiobatis daviesi	Baryx decatactylus
Conger sp.	Rexea nakamurai
Nettastoma parviseps	Coelorinchus sp.
Synaphobranchus affini	Nexumia sp.
Ijimaia plicatellus	Ventrifossa ctenomelas
Satyrichthys engyoceros	Cat shark?
Aldrovandria phalacra	Polymixia berndti
Chaunax fimbriatus	

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

Orion manipulator did not work at 1225 and 1000 m depths (it worked at 650 m).

It is difficult to conduct quantitative video surveys without knowing the speed or distance traveled over the seafloor. I recommend that the Pisces acquire a Doppler current meter system that allows recording of speed and elevation over the seafloor during surveys.

Recommendations for corrective action or improvement:

In your opinion, did the mission essentially achieve its purpose? Compare actual work accomplished with the work that was expected to be accomplished.

The mission achieved nearly all of its goals, with the exception of collecting 2 of the 5 desired tube cores.

List specimens or samples collected on the mission.

Scavenger trap with ~ 50 shrimp (*Laevigatus ensifer*) and several hundred amphipods from 650 m in canyon. Two push core samples (fixed for macrofauna) from 645 m depth. Scoop net with approximately 15 gastropods feeding on an algal parcel.

Dive **P4-091**

DATA RELEASE

Data may be retained by the project leader for up to 2 years after the mission date with the following exception. NOAA may request to use photos for publication or publicity purposes at any time.

Fill in the appropriate statement below and sign this form.

I hereby release the data archived by HURL for public consumption following mission

Canyon & Scavenger Communities of the Main & Northwestern Hawaiian Islands (project title)

held on 9/5/2003 (date) in the following way:

a. CTD data by 9/5/2005 (date)

b. voice transcripts, video, and still camera film by 9/5/2005 (date)

c. other 9/5/2005 (date)

d. I will give my written consent to individuals wishing to use these data prior to the above dates depending on the nature of the request(s).

_____ Principal Investigator