HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT DIVE: P4-095

MISSION STATUS

Location: Nihoa, NWHI

Latitude: 23°12.5340 **Longitude:** 161°41.8250

Mission Date: 9/9/2003 **Duration:** 8 h 02 min

Maximum Depth: 392 m

Project Title: Canyon & Scavenger Communities of the Main & 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: Craig Smith **Observer 2:**

Address: same as above **Address:**

Pilot 1: Terry Kerby **Pilot 2:** Max Cremer

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

Objectives:

- Dive to 1200 m on slope and transit to ~1000 m.
- At 1000 m, deploy baited trap, and deploy and observe bait parcel for ½ h.
- Conduct video and visual surveys along 1000 m contour.
- Recover baited trap.
- Proceed to 650 m on slope, deploy baited trap, and deploy and observe bait parcel for ½ h.
- Conduct video and visual surveys along 650 m contour.
- Collect core samples for macrofauna at 650 m site.
- Recover baited trap.

We arrived at 1200 m depth on the open slope and proceeded up slope to 990 m, videotaping megafauna as we went. Fish and benthic invertebrates occurred in low abundance at 990 m depth. We deployed the bait parcel and observed it for 1/2 an hour. 4-5 Synaphobranchid eels

and Coryphaenoides fed on the fish during this period, with the eels removing large chunks. We then transitted up slope to 650 m, again observing the relatively sparse megafauna. At 650 m we collected 4 tube cores in an area of sediment, and then deployed the bait parcel for 1/2 an hour. After 4 minutes, a 2.5 m sleeper shark approached and swallowed the 3 kg of fish, 6 kg of lead, 1 m of polypropelene line, ending the station. We then surfaced a successful dive.

Again observed sleeper sharks at 600-1000 m. We believe this is the first observation of sleeper sharks in Hawaiian waters.

Species list:	
Synaphobranchid eels	Somniosus sp.
Coelorhynchus sp.	Nezumia sp?
Nettastoma sp.	Plesiobatis daviesi
Adrovandia sp.	Beryx decadactylus
Barbourisia rufa	

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

It was difficult to conduct quantitative video surveys without knowing the speed or distance traveled over the seafloor.

Recommendations for corrective action or improvement:

I recommend that the Pisces IV and V acquire a Doppler current meter system that allows recording of speed and elevation over the seafloor during surveys.

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 all the desired tube cores.

List specimens or samples collected on the mission.

Four push core samples (fixed for macrofauna) from the 650 m site.

Dive **P4-095**

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 9/9/2003 (date) in the following way:

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

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