**HAWAI'I UNDERSEA RESEARCH LABORATORY**

**QUICK LOOK REPORT DIVE: P4-099**

# MISSION STATUS

**Location:** Maro Reef, NWHI

**Latitude:** 25°31.0873 **Longitude:** 170°24.8105

**Mission Date:** 9/15/2003 **Duration:** 8 h 08 min

**Maximum Depth:** 681 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:** Eric Vetter

**Address:** same as above **Address:** HPU

**Pilot 1:** Terry Kerby **Pilot 2:**

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

Objectives:

1) Conduct video surveys, collect 6 cores samples, deploy baited traps and observe bait parcel for ½ hour at 650 m depth inside canyon.
2) Proceed to 350 m depth in canyon axis, surveying along the way and deploy scavenger trap and bait parcel (observing parcel for ½ h).

All these objectives were realized, with the exception that 2 rather than 6 cores were collected.

Dive started on a steep muddy bottom. Changed to a more gradual slope composed of sand and coral rubble after transiting to the canyon axis. Diverse fish assemblages were observed in the deeper regions of the canyon and abundant gorgonians, corals, and sponges on the canyon wall at 650 m. The canyon axis was often easily identified by the presence of coral rubble. Out of the canyon (and on its slopes) the sediment

was composed of mud. The region around the 350 m station was dominated by shallow depressions and low ridges. The canyon was not evident above 350 m.

Species List:
Please mark whether -single; -few (2-10); -many (11-100); -abundant (>100)
(e.g., Symphysanodon maunaloae-many)

| |
|---|
| Ventrifossa-many |
| Beryx decadactylus-few |
| Brotula multiborbata-single |
| Lophiodes miacanthus-single |
| Sladenia remiger-single |
| flat fish-many |
| Chaunax umbrinus-few |
| Chlorophthamalus japonicus-many |
| Ijimaia-single |
| Nettastoma parviceps-few |
| Rexea-few |
| Synaphobranchus-few |
| Squalus mitsukuril-single |
| Satyrichthys hians-many |
| Trichiuridae-single |
| Nezumia-single |
| Polymixia-few |
| Etelis curuscons-single |
| Seriola dumerili-single |
| Chrionema squamiceps-few |
| Pontinus macrocephala-few |
| Symphysanodon maunaloae-few |
| Laemonema-single |

## 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. The Hyco manipulator broke a hydraulic line and was unusable. This did not compromise our dive objectives.

**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 bottom 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.**

Two push core samples (fixed for macrofauna) from the 650 m canyon and site.

# 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 9/15/2003 (date) in the following way:

a. CTD data by 9/15/2005 (date)

b. voice transcripts, video, and still camera film by 9/15/2005 (date)
c. other 9/15/2005 (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