HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT DIVE: PV- 529

MISSION STATUS

Location: Pioneer Ridge

Latitude: 25º33.6909 **Longitude:** 173º30.3838

Mission Date: 12 October 2003 **Duration:** 5hrs 3m

Maximum Depth: 1813 m

Project Title: Seamount Surveys of Deep-Water Coral Distributions as Related to Geological Setting in the Northwestern Hawaiian Islands

Principal Investigator: Amy Baco-Taylor

Address: Biology Department
MS#33, 214 Redfield
Woods Hole, MA 02543

Phone: (508) 289-2331

Observer 1: Amy Baco-Taylor **Observer 2:** John R. Smith

Address: See above. **Address:** HURL

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

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

Objectives:

1. Perform observational transects of invertebrate fauna along the ridge crest, beginning vertical transect at 1800 m.
2. Collect samples for identification and for voucher specimens.
3. Collect rock samples to characterize geological setting,

Observations, findings, etc:

We landed on the bottom in a dense coral forest overlying basalt. The coral forest had similar community structure to what we found on the previous ridge dive. There were no sponges in the area we landed. We spent some time trying to find sponges to sample for taxonomic purposes. We could not find the skeleton sponge but did sample the other dominant sponge species. We gave up on the skeleton sponge and began heading north up the ridge. As we came into an area with dense sponges, we encountered a very strong current to the east. It blew us over the ridge and down the east side of the ridge slope. The east side of the ridge slope was very steep and we were barely able to fight the current. We had not planned observations on the east slope, but found it to also have similar community structure, with very large sponges and numerous bamboo corals. Corallium corals were also present. When we eventually reached the top of the ridge again, we found the yellow gorgonian, Anthomuricea sp. to be very

abundant and the dominant species, on the flatter portions of the ridge crest. We spent the entire dive fighting strong currents and did not make it past the end position of our previous dive at this location. We returned to the surface and had thruster problems beginning at 800m from the surface. We had to return to the surface using soft ballast.

Species list:
Please mark whether S-single; F-Few (2-10); M-Many (11-100); A-Abundant (>100)

Corallium sp	M	Iridogorgia superba	A
Large sponge	AA	Iridogorgia bella	A
Bamboo sticks	A	seastar	F
Bushy bamboos	A	Lepidisis nuda.	A
Large bushy Bamboos	M	Radiceps spiralis	F
Other bamboos	AAA	crinoid.	S
Yellow gorgonian, Anthomuricea sp.	AA	Dactylocalcid vase	A
Fish	F	Regadrella sponges	A
Isidid	AA	yellow gorgonian with large polyps	S
Acanella sp	AA	Keratoisis flabellum	F
Chrysogorgid	AA	Farrea sp, sponge	A

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

We encountered strong currents, almost stronger than the Pisces could fight.
The port thruster went on out the way to the surface, we had to surface using soft ballast.

Recommendations for corrective action or improvement:

Get better thrusters!

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

We were unable to fight the currents enough to get past about 1660 m. We did collect many of the dominant sponge species and a few corals we were unable to collect on the first dive here. We also had an opportunity to observe the east slope, which was not planned for the dive.

List specimens or samples collected on the mission.

2 Bamboo corals
1 chrysogogrgid
3 rocks
5 sponges

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

Seamount Surveys of Deep-Water Coral Distributions as Related to Geological Setting in the Northwestern Hawaiian Islands

held on 12 October 2003 in the following way:

a. CTD data by 12 October 2005 (date)

b. voice transcripts, video, and still camera film by 12 October 2005 (date)

c. other 12 October 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