

HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT DIVE: PV-524

MISSION STATUS

Location: South Pioneer Bank

Latitude: 25° 49.2423

Longitude: 173° 27.3226

Mission Date: 10/7/03

Duration: 8 hrs

Maximum Depth: 1209

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

Principal Investigator: Amy Baco-Taylor

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Observer 1: John Smith

Observer 2: Christopher Kelley

Address: HURL

Address: HURL

Pilot 1: Chuck Holloway

Pilot 2:

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

Objectives:

Explore and describe the vertebrate and invertebrate fauna on the recently mapped South Pioneer Ridge.

Observations, findings, etc:

The submersible landed in a precious coral bed with *Corallium secundum* at 400-500 meters and *Gerardia* sp at and below 500 m. After moving downslope to 600 m, a 1 kilometer transect was conducted in steep rocky terrain where both fish and invertebrates were identified and counted. Five gorgonian specimens were collected at this depth

including two which had previously only been identified to family. Fish observed were primarily alfonsons and gempylids. The sub then moved downslope to 1200 meters, passing first over a sediment flat then a steep manganese crusted carbonate wall at approximately 970 m. A second 1 kilometer transect was conducted at this depth, however, the substrate was primarily sediment. Animals observed included halosaurids, holothurians, a very strange pagurid crab with an unusual zoanthid growing on its back, and shrimp. A seastar and the crab were collected. The sub finished the dive by conducting a vertical transect back upslope to 945 meters. Along the wall, a number of gorgonians and fish were observed and counted. Just prior to leaving the bottom, a large shark was videotaped which had never before been observed during a Pisces dive.

Species list:

Please mark whether S-single; F-Few (2-10); M-Many (11-100); A-Abundant (>100) (e.g., *Symphysanodon maunaloae*-M)

- add rows as needed

Paramuricid blue	Aldrovandria sp.
Bathytrois atricolor	Hydrolagus purpureus
Chrysogorgia rostrata	Macrourids
Mediaster ornatus	Pennatulids
Paleopatides rotifer	Shrimp
Pagurid with zoanthid	Echinothurids
Halosaurids	Large shark
Paramuricid gold	Narella nuttingi
Other gorgonians	Hormathiid sp 5
Corallium secundum	Gerardia sp
Rexea nakamurai	Irridogorgia superba
Beryx sp	Metallogorgia melanotrichos
Enalopsammia rostrata	Lamprogamma brunswegi?

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

The main limitation was the fact that we needed to begin the dive in relatively shallow water in order to test the tracking and communications. This only allowed us to complete 2 of the 3 planned transects. One other limitation was an inoperative CTD.

Recommendations for corrective action or improvement:

Tracking and communications worked and therefore we should not have a need to proceed in this manner in subsequent dives. Hopefully the CTD will be repaired shortly.

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

Yes, although not all of the planned transects were completed.

List specimens or samples collected on the mission.

7 gorgonians, 1 hormathiid anemone, 1 seastar, 1 unusual pagurid with a zoanthid, several ophiuroids

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

(project title)

held on 10/7/05 in the following way:

- a. CTD data by _____(date)
- b. voice transcripts, video, and still camera film by 10/7/05(date)
- c. other 10/7/05(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