HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. P5-237

MISSION STATUS

Location: Bishop Seamount

Mission Date: August 25, 1993

Maximum Depth: ~1450 m

Project Title: Effects of limited dispersal on population genetics of seamount benthos

Principal Investigator: Lauren Mullineaux , Scott France

Address: Woods Hole Oceanographic Institution
Woods Hole, MA 02543

Phone: (508) 457-2000

Observers: Scott France, Renee White

Addresses: Same as above

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

This dive to Bishop Seamount was the 3rd in a series of 4 dives to 3 seamounts SW of Hawaii to collect deep-sea benthos for use in population genetic studies. This was the first ever dive onto Bishop Seamount. In addition to collecting samples for genetic study (see Quick Look Mission Report No. P5-235), we documented as much of the fauna and habitat as possible using video and still photography. Collections were made between 1010-1440 meters. Rock samples were made at 1010, 1200, and 1295 meters. Parts of 16 corals, several ophiuroids, 1 stalked crinoid, and 1 sea urchin were collected. Bottom facies varied from sloped talus fields interspersed with sediment to smooth lava flows. Density of sessile fauna varied from place-to-place but was highest near ledges, walls, or on ridges or large outcrops.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

Detailed topographic charts of Bishop Seamount are not available, and thus a survey of the bathymetry was needed prior to sub launch. However, similar to the previous mission, the fathometer was not working well and this delayed our start. This also played a role in finding our bottom station as we were positioned closer to the summit then desirable. This resulted in an ~1 hour search for appropriate working site (~1400 m). Surface radio was not operational.

Recommendations for corrective action or improvement:

Ideally, better bathymetric charts are required, although this may not be a HURL obligation. Operational fathometers and sonar (on sub) would be helpful.

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 was very successful. This was the first exploration of Bishop Seamount. Our objective was to collect tissue samples from a variety of benthos, and we were highly successful in that regard.

List specimens or samples collected on the mission.

2 individual purple octocorals
5 individual Narella bowersi? with associated ophiuroids
2 individual yellow coral
4 individual Paragorgia - type white corals
2 individual Lepidisis olapa?
1 individual stalked crinoid
1 individual pen-like coral
1 individual irregular sea urchin

Dive P5-237

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 Effects of limited dispersal on population genetics of seamount benthos (project title) held on August 25, 1993 (date) in the following way:

a. CTD data by August 25, 1993 (date)

b. voice transcripts, video, and still camera film by August 25, 1995 (date)

c. other August 25, 1993 (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).

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Principal Investigator