

HAWAII UNDERSEA RESEARCH LABORATORY
QUICK LOOK REPORT MISSION NO. P5-235

MISSION STATUS

Location: Cross Seamount, 18^o46.617'N; 158^o14.823'W
Mission Date: August 18, 1993
Maximum Depth: 1400 m
Project Title: Effects of limited dispersal on population genetics of seamount benthos
Principal Investigator: Lauren Mullineaux, Scott France
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Scientific Data Acquired : Prepare an abstract outlining your objectives, techniques, findings, etc.

Our objective was to collect deep-sea benthos, primarily gorgonian and antipatharian corals, for use in genetic studies of seamount populations. It was important to know the location and identity of each individual collected organism, thus, a series of color-coded nets was attached to the sub's basket, and individual coral samples were placed into the nets using the manipulator arms, with code and locations recorded on data sheets. Nets containing organisms were stored in a PVC collecting box, with lid, mounted in the basket. The PVC box maintained the water at low temperature, thus ensuring relatively fresh tissue needed for DNA extractions. We were successful in collecting several specimens between 1000-1400 m on the northeast flank of Cross Seamount.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

PVC collecting box relatively small; lid does not remain open on bottom making it difficult and time-consuming to store nets. Strobe for camera not operational.

Recommendations for corrective action or improvement:

Short-term solution for PVC box lid - weight handle to hold lid in open position. Longer term design - larger box to hold more specimens, perhaps one that is easily removed from sub basket so that specimens can be left in cold collected water until worked on in lab by science personnel - e.g. rectangular box with adapters for carrying handles.

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

The pilot, Terry Kerby, was very adept at sampling the desired organisms and getting them in to the nets, and getting many nets into the collection box (despite the limitations addressed above). The mission was very successful and achieved its purpose.

List specimens or samples collected on the mission.

4 individuals - ?Narella bowersi w/associated ophiuroids
2 individuals - Lepidisis olapa
2 individuals - unidentified purple gorgonian
1 individual - unidentified yellow gorgonian
2 individuals - unidentified white gorgonian
1 individual - unidentified antipatharian
2 individuals - unidentified beige gorgonians

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 18, 1993 (date) in the following way:

- a. CTD data by August 18, 1993 (date)
- b. voice transcripts, video, and still camera film by August 18, 1995 (date)
- c. other August 18, 1995 (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