HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. P5-300

MISSION STATUS

Location: Penguin Bank

Mission Date: September 19, 1996

Maximum Depth: 740 m.

Project Title: Dispersal and Population Genetics of Seamount Benthos

Principal Investigator: Scott France / Lauren Mullineaux

Address: Woods Hole Oceanographic Institution
Biology Department
Woods Hole, MA 02543

Phone: (508)289-2898

Observer 1: Scott France

Address: as above

Observer 2: Ron Etter

Address: Univ. of Massachusetts
Boston

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

We are measuring the genetic variation of deep-sea corals to quantify gene flow and estimate larval dispersal among disjunct habitats (seamounts and island slopes). Following our series of 1993 dives and subsequent lab work, we have identified several species as the focus of our investigation. Our objective on this dive was to collect individuals of these species from depths between 400-600m. Coral colonies were directly sampled using the manipulator arm; in most cases only a portion of the colony was taken. The initial hour of the dive we traversed sandy bottom covered by relatively high densities of ophiuroids, urchins, and cerianthid anemones. The remainder of the dive we climbed or traveled along a submerged reef wall searching for, and sampling, corals.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

1. Sampling portions of colonies was difficult and slow with the manipulator claw.

2. The ability to preview an area would make the dive time more efficient, with less time spent transiting habitat lacking the species of interest.

Recommendations for corrective action or improvement:

1. A claw that clamped closed on parallel surfaces would work better for this sampling. Consultation with *Pisces V* pilots has solved the problem and the appropriate claw will be used in remaining dives.

2. Developing the ROV technology would assist in this limitation.

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 successful in sampling the coral species that we observed.

List specimens or samples collected on the mission.

1 individual bamboo coral (Lepidisis sp.?)
1 individual unidentified antipatharian
2 individual unidentified red/brown planar octocorals
1 individual Schizopathes (Bathypathes) conferta
2 individual unidentified yellow planar reticulate octor
1 individual unidentified primnoid, planar, dichotomous branching
1 individual crinoid
3 individual galatheid crabs
1 individual unidentified shrimp
1 coral skeleton with many zoanthid polyps
1 Corallium, pink coral.

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

Dispersal and Population Genetics of Seamount Benthos (project title)

held on 9-19-96 (date) in the following way:

a. CTD data by 9-19-96 (date)

b. voice transcripts, video, and still camera film by 9-19-98 (date)

c. other 9-19-98 (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