HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. P5-298

MISSION STATUS

Location: Kaena Point, Oahu

Mission Date: September 16, 1996

Maximum Depth: 593 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 **Observer 2:** Ewann Agenbroad

Address: as above **Address:** as above

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 400-600 m. Coral colonies were directly sampled using the manipulator arm; in most cases only a portion of the colony was taken. The initial portion (~2 hours) of the dive was spent transiting a rapid current area with sandy or flat packed bottom - poor habitat for our target species. Eventually we located rocky outcrops and sampled taxa.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

Each of the video camera systems had a flaw. The center-mounted digital camera has an automatic standby shut off if inactive for a short time, which thus requires constant monitoring to keep running. There is a delay in getting camera running again when power switch is pushed. The starboard video is very difficult to focus, particularly on close shots.

Recommendations for corrective action or improvement:

Center video: use camera without auto-shut off feature. Also allow manual focus in addition to autofocus.

Starboard video: improve lens or camera focusing to permit better focusing, or new camera.

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 that we were able to collect many coral samples after initially having to traverse barren habitat. Most of the samples were not our target species, but this is a function of biological distribution (which could only be discovered by exploration and sampling).

List specimens or samples collected on the mission.

1 individual brisingid asteroid
1 individual seastar (asteroid)
9 individual unidentified primnoid gorgonians
3 individual unidentified scleractinian corals
2 individual unidentified yellow Acanella-like gorgonians
4 individual unidentified purple Suberia-like gorgonians
1 individual Corallium pink coral
Several ophiuroids associated with 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

Dispersal and Population Genetics of Seamount Benthos (project title)

held on 9-16-96 (date) in the following way:

a. CTD data by 9-16-96 (date)

b. voice transcripts, video, and still camera film by 9-16-98 (date)

c. other 9-16-98 (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