HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT
DIVE: PV-594

MISSION STATUS

Location: Keahole Point

Latitude: 19° 47.881N **Longitude:** 156° 08.804W

Mission Date: 16 October 04 **Duration:** 9hrs 6min

Maximum Depth: 1655 m

Project Title: Paleoclimate records of Pacific variability from deep sea corals

Principal Investigator: Robert Dunbar

Address: Geological and Environmental Sciences
Stanford University
Stanford CA 94305-2115

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Observer 1: Robert Dunbar **Observer 2:**
Address: As above **Address:**

Pilot 1: Terry Kerby **Pilot 2:** Colin Wollerman

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

Objectives: To collect deep sea corals of various species for paleoclimate studies. The focus for this dive was on obtaining a suite of coral samples extending along a depth transect from 1650 m to 400 m.

Observations, findings, etc:
At depths below about 1200 m, the bottom consisted mainly of sandy silty carbonate muds and silty carbonate muds with occasional basaltic boulders. Above 1200 meters we began to see large boulders of limestone and mixed limestone basaltic breccias. Several vertical walls were observed between 1000 meters and 400 meters, some of them extending for 10's of meters and consisting of pillow basalts. Above 700 meters, nearly all limestone surfaces exhibited signs of extensive dissolution.

Species list:

Collected
Gerardia spp., sub-fossil
Corallium Secundum
Corallium Loensis
Acanella spp. (dispar?) or Keratoisis flabellum
Iridogorgia spp. (superba?)
Narella spp.
Isidella spp. (lyrate)
Pterostenella spp.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

Titan manipulator arm was not functioning. Difficulty collecting samples with the Hyco arm not as dexterous. Also range of motion restricted.

Recommendations for corrective action or improvement:

More delicate sampling device.

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

We accomplished what we expected and met all objectives of the dive.

List specimens or samples collected on the mission.

5 Gerardia spp. (sub-fossil) from ~400 m, 1 Keratoisis sp (likely flabellum), 1 Iridogorgia, 1 Corallium secundum, 1 Corallium spp. (loensis), 1 Pterostenella spp. from 1643 m, 1 Isadella spp. (lyrate)

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 (project title)

held on_____(date) in the following way:

a. CTD data by_____(date)

b. video and images by_____(date)

c. other_____(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