

**HAWAI'I UNDERSEA RESEARCH LABORATORY**

**QUICK LOOK REPORT  
DIVE: PV-586**

**MISSION STATUS**

**Location:** Lanikai

**Latitude:** 21° 24.4

**Longitude:** 157° 38.0W

**Mission Date:** 6 October 04

**Duration:** 8hrs 33min

**Maximum Depth:** 567 m

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

**Principal Investigator:** Robert Dunbar

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**Observer 1:** E. Brendan Roark  
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**Observer 2:** Stewart Fallon  
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**Pilot 1:** Max Cremer

**Pilot 2:**

**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 small and medium sized living *Gerardia* samples, med to large dead and sub-fossil *Gerardia*, *Corallium*, and *dendrophelem* and bamboo samples. 9 samples were collected using a Titan mechanical arm and an aluminum collecting basket. We obtained digital photographs of each sample, as well photographs of other corals, and seven hours of video on each of two digital video cameras with audio record. Dissolved oxygen concentrations were recorded with a CTD throughout the duration of the dive.

Observations, findings, etc:

Medium level of diversity of deep water corals with most DSC areas dominated by medium to large Gerardia located on high topographic hard substrates outcrops or steep ledges. Large areas of dead coral rubble like elk horn corals, with a few patches of living corals (perhaps dendrophylem) at the top of the pinnacle. Rest of the ground covered was flat open sand areas with a fair number of small fish in the area. Contoured along at ~400m, some Gerardia sp.in beginning of dive, about 4 hours into dive we came across large congregation of Gerardia sp. widths of 1.5m, heights of 1 to 1.5m.

Species list:

Collected

**Gerardia spp., living and sub-fossil**

**Corallium Secundum**

**Keratoisis flabellum**

**Dendrophyllia**

**MISSION EVALUATION:**

**Limitations, failures, or operational problems noted:**

No real problems, just some difficulty sampling smaller delicate carbonate corals. As well as box to put them in.

**Recommendations for corrective action or improvement:**

More delicate sampling device and the addition of a bio-box to the AI box.

**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 more than expected and met all objectives of the dive.

**List specimens or samples collected on the mission.**

5 Gerardia sp. (3 living, 2 sub-fossil); 1 Paragorgia spp.; 1 Keratoisis spp

## 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