

**HAWAI'I UNDERSEA RESEARCH LABORATORY**

**QUICK LOOK REPORT  
DIVE: PV-592**

**MISSION STATUS**

**Location: Keahole Point**

**Latitude:** 19° 48.28

**Longitude:** 156° 07.55W

**Mission Date:** 14 October 04

**Duration:** 8hrs 7min

**Maximum Depth:** 415 m

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

**Principal Investigator:** Robert Dunbar

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**Observer 1:** Tom Guilderson  
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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 med to large dead and sub-fossil *Gerardia*, *Corallium*, and *dendrophelem* and bamboo samples. 8 samples were collected using a Tyco mechanical arm and an aluminum collecting basket. We 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:

Coral gardens were patchy, high diversity and abundance in areas with corals, Gerardia, numerous Corallium sp. and bamboo. Bottom topography consisted of carbonate with extensive dissolution in areas, then bottom changed distinctly to basalt and occasional lava flows. We came across large flat sandy expanse to the south-east of the coral beds. Very few if any corals were observed in the basalt area and sandy area. Numerous ledges and drop-offs around the coral gardens and carbonate area. We collected fossil Gerardia, living Bamboo and Corallium corals.

Species list:

Collected

**Gerardia spp., sub-fossil**

**Corallium Secundum**

**Acanella 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 nor range of motion.

**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 sp. (sub-fossil); 1 Keratoisis sp (likely flabellum), 1 Acanella sp. 4 Corallium sp. (likely secundum)

## 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