HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT
DIVE: PV-569

MISSION STATUS

Location: Au'au Channel, Maui

Latitude: 20º 54.25' N **Longitude:** 156º 45.75' W

Mission Date: September 11 2004 **Duration:** **3** hours mins

Maximum Depth: 96 m

Project Title: Ecological impact of an invasive marine invertebrate in Hawaii's coral reef communities

Principal Investigator: Richard W. Grigg, University of Hawaii

Address: 1000 Pope Road, Honolulu, HI 96822

Phone: 808-956-7186

Observer 1: Sam Kahng **Observer 2:** Marc Crepeau, HIMB
Address: 1000 Pope Road, Honolulu, HI 96822

Pilot 1: Terry Kerby **Pilot 2:**

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

Objectives:

An investigation of the deep reef habitat was conducted in select locations in the Hawaiian Archipelago to determine the geographic spread and ecological intensity of the *Carijoa riisei* biological invasion on the deep reef. This dive was one of dives on the Pisces V submersible and 4 remotely operated vehicle deployments of the RCV-125 conducted September 8-15.

Observations, findings, etc:

The Pisces V submersible track was southward over a set of low ridges separating and bordering a set of shallow solution basins north of Circus ridge. Bottom of the solution basin was 96m. Two low rising mounds of hard substrata at 88m covered in plate coral rubble with a sparse distribution of live plate corals. Several black coral colonies with sparse branching were observed. Most colonies were heavily fouled with epifauna (sponge, oysters, bryozoans, etc.). Some black coral colonies were partially covered in Carijoa riisei.

A couple long but narrow, rocky ridges running east-west at 65-80m were encountered rising up from the sandy bottom with abundant black corals colonies populating the tops. Most were healthy but some had partial C. riisei overgrowth. A few were completely smothered. C. riisei was observed on black coral as shallow as 67m. C. riisei and black coral samples were taken for genetic and taxonomic analysis. A pair of Galapagos sharks 6-7 ft. long were observed circling the ridge. Schools of jacks were also observed.

Shallow, flat and gently sloping substrata was covered in rubble with some Halimeda sp. The shallowest habitat encountered was the top of a gently sloping pinnacle at 58 m with large patches of a leafy algae. Algae samples were taken for taxonomic identification.

A group of large black coral stumps were encountered in a concentrated area in the middle of a sand flat at 69m. Thick, heavily eroded skeletons with carbonate rock bases still attached were laying on their sides. It appeared they were harvested then dropped in mass.

Species list:

Carijoa riisei
Antipathes dichotoma
Antipathes grandis
Leptoseris sp.
Halimeda sp.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

Recommendations for corrective action or improvement:

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

Mission accomplished. The crew did a fine job in helping us meet our scientific objectives.

List specimens or samples collected on the mission.
Carijoa riisei, black corals, plate corals, macro algae

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