HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT
ROV: RCV-348

MISSION STATUS

Location: Keyhole Pinnacles, Au'au Channel, Maui

Latitude: 20º 45.95' N **Longitude:** 156º 45.62' W

Mission Date: October 22, 2006 **Duration:** 1 hours 42 mins

Maximum Depth: 131 m

Project Title: Ecological impact of *Carijoa riisei* on black coral habitat

Principal Investigator: Sam Kahng, University of Hawaii

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Observer 1: Daniel Wagner **Observer 2:**
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Pilot 1: Dan Greeson **Pilot 2:** Peter Townsend

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 Au'au Channel between the islands of Maui an Lanai in the Hawaiian Archipelago to determine the ecological impact of the *Carijoa riisei* biological invasion on the black coral habitat and the deep reef. This was one of two dives on the Pisces IV submersible and 3 remotely operated vehicle deployments of the RCV-125 conducted October 21-24, 2006.

Observations, findings, etc:

The RCV track was NE along the ridges separating solution basins in the southern end of the Au'au Channel between the islands of Maui and Lanai.

Most of the survey transect covered soft, sandy bottomed terrain. At depths above 90 m a macro algae with a round blade and solitary holdfast was common in spare but regular frequency. Below 110 m patches of wire coral, *Cirrhipathes* sp. were encountered. A few dense wire coral patches were observed.

On steeper slopes small patches of black corals were observed. Most were large and several were overgrown with *Carijoa riisei*. Patches of scleractinian plate corals (*Leptoseris* spp.) were also encountered on ridges bordering the solution basins. Patches of calcareous green algae (*Halimeda* sp.) were encountered in shallower sandy locations at 60-80 m. A foliose green alga resembling Ulva was also seen in sparse abundance.

Observations in this survey extend the southern most known distribution of *C. riisei* in the Au'au Channel. These observations also confirm that the phenomenon of *C. riisei* overgrowing black corals is widespread in the channel.

Species list:

Cirrhipathes sp..
Antipathes dichotoma
Carijoa riisei
Leptoseris spp.
Halimeda spp.

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.

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