HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT
ROV: RCV-347

MISSION STATUS

Location: Keyhole Pinnacles, Au'au Channel, Maui

Latitude: 20º 56.29' N **Longitude:** 156º 45.65' W

Mission Date: October 21, 2006 **Duration:** **1** hours 26 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 two Keyhole Pinnacles in the north end of the Au'au Channel between the islands of Maui and Lanai.

Patches of Scleractinian plate corals (*Leptoseris* spp.) mixed with calcareous green algae (*Halimeda* sp.) were encountered at 60-80 m. Monospecific aggregations of Leptoseris sp. were observed in patches 80-100 m. Occasional patches of black corals were observed on rugose features. The alien octocoral *Carijoa riisei* was commonly associated with black corals growing on the colonies and on rugose substrata.

Below 120 m, wire corals Cirrhipathes sp. were common, sometimes in dense patches. A foliose green algae cf. Cladophera was observed in sparse but regular abundance.

This area of the Au'au Channel represents an extreme northern position of the sunken land bridge between Maui and Lanai. The 1st and 2nd Keyhole Pinnacles appeared to have similar benthic fauna. The observations represent a continuation of time series observations from 2001, 2003, and 2004.

Species list:

Carijoa riisei
Antipathes dichotoma
A. grandis
Myriopathes spp.
Leptoseris spp.
Halimeda spp.
Cirrhipathes 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.

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