HAWAI‘I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT (QLR) for *Pisces* and *RCV-150*

DIVE: _R-411_____

(*Extend length of sections as needed/appropriate*)

MISSION STATUS

Location: Southeast Kauai

Latitude: 21 51.703 **Longitude:** 159 23.867

Mission Date: 12/10/2007 **Duration: 2 hours 4 minutes**

Maximum Depth: 224

Project Title: Comparing Hawaii's Deep Reef Coral Communities

Principal Investigator: Montgomery/Rooney/Pyle/Boland/Parrish

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Observer 1: Tony Montgomery
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Observer 2: Ray Boland
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Pilot 1: Dan Greeson **Pilot 2:** Pete Townsend

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

Objectives:

The main objective of this dive was to scout areas for black and scleractinian corals around south eastern Kauai. Not many deep water scleractinian corals are known around Kauai, but black corals are well known, but not from specific locations. This dive was planned to help assist the scientists document the presence of deep water corals in general around Kauai for comparison to Maui. The initial part of the dive started deep in order to cover both deeper and shallower ledge features in the area to make comparisons between depths.

QLR continued
Observations, findings, etc:

This survey did not find any black coral along the ledges and slopes. A large part of the survey was over sandy habitat and did not show any signs of black or stony coral habitat. Part of the way through the dive, a rubble reef was encountered that had Halimeda, several species of corals (some being common shallow water species while others were able to be indentified). This rubble reef was very expansive and seemed to only end when the ROV drifted off a large cliff. Near the end of the survey, a large Leptoseris bed was discovered unexpectedly. This reef looked very similar to the reefs off Maui; however, part of the Leptoseris reef seem to be dead or contained a large portion of dead plate corals. The distance from shore of this reef compared to Maui is an interesting comparison.

Observed Species list:

Cirrhipathes spiralis
Hydroids
Halimeda
Holathuria atra
Porites lobata
Montipora capitata
Pocilpora meandrina
Leptoseris hawaiiensis
Panularis marginatus

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

There were no failures encountered during this dive. The ROV did move a little fast due to current issues and a slower speed would have provided high resolution data on the unexpected Leptoseris reef.

Recommendations for corrective action or improvement:

Provide track data in electronic format, if possible. Providing this data in an electronic format would allow the PI to map out fairly quickly with minimal work which can help plan future ROV dives. This is especially important for projects that need feedback from one ROV to pick the coordinates for the next.

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

The mission was very successful in that the information provided during the ROV dive helped better utilize the sub dive the following day. It was not expected to find an expansive Leptoseris reef on Kauai, but this transect showed a very high density reef. This single ROV dive will be used to develop more specific work around Kauai for deep reefs.

List specimens or samples collected on the mission:

None

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

Comparing Hawaii's Deep Reef Coral Communities

_____

_____

Held on 12/10/2007 (date) in the following way:

a. CTD data by 12/11/2009 (date)

b. Video and images by 12/11/2009 (date)

c. Other 12/11/2009 (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).

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Principal Investigator

ANNUAL/FINAL REPORT

NOAA's Office of Undersea Research
Submersible Science Program

Report Status: _____ Final or Continuing _____

Date of Report: _____ Dive Numbers: _____

Inclusive Dates of Mission: _____

Project Title: _____

_____

Principal Investigator: _____ Signature: _____

Names of Co-Investigators: _____

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I. Abstract of Mission Results: Please include diagrams or figures as appropriate.

II. Please discuss the following:

A. Significance of the mission in relation to your research goals.
B. Scientific contributions of the mission in terms of species, patterns, and processes observed or measured. Were the initial hypotheses addressed; were any new ones posed as a result of the mission? Was the methodology and/or technology utilized successful and repeatable by others?
C. For continuing status reports, indicate the extent of data analysis or manuscript preparation completed to date.
D. Advantages of NOAA's Undersea Research Program to your research investigations.
E. Plans for use of the data gathered on this mission and the applications, products and/or benefits to NOAA.

III. Please include any comments on the following operational details, where applicable:

A. Weather and water conditions affecting operations
B. Safety problems and/or concerns
C. Dive management and personnel cooperation
D. Logistics and support activities