HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. RCV- 065, 066

MISSION STATUS

Location: 065: Lanikai, Onaga Pinnacle; 066: Makapu, Line of boulders.

Mission Date: Sept. 26, 99

Maximum Depth: 065: 370m; 066: 89m.

Project Title: Evaluation of Non Lethal Methods for Assessment of Overfished Deep Water Snapper Resources.

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

A major objective was to scout these 3 areas for physical and geological characteristics and common, conspicuous flora and fauna, and characterize the properties of habitat for fishes where the fishes occur. Emphasis was on commercial eteline snappers. On dive RCV-065, an important objective was to re-survey areas that many serve as benthic habitat for young ehu, observe the habitat in more detail, and document use by eteline snappers. On dive RCV-066, the main objective was to locate another portion of a unique, narrow line of boulders in this area off Makapu, observe that unique habitat more closely, and confirm any use of the habitat by eteline snappers. The results of dive RCV-066 can be compared with results of previous line fishing in this area in a related project.

Techniques & Results: The RCV was deployed by the Ka'imikai-o-Kanaloa in areas that would permit it to move along pre-plotted tracts of interest:

RCV-065 dive began at 1925 at a point west of the main slope of the Onaga Pinnacle feature at a depth of 360 m. It then moved on a generally ENE track up the western slope of the feature, rising throughout the dive continuously to a final depth of 269 m at

the end of the dive at 2037. The substrate initially was a relatively smooth and level sandy plain. Farther upslope, more outcrops occurred, first small and then increasing in size until at times the whole field of view consisted of continuous rock substrate with only light and patchy sediment covering, still farther upslope, outcroppings were reduced and sand substrate dominated again, but small outcrops remained conspicuous, mostly in the form of slabs of rock with rather smooth upper surfaces but providing considerable cover in ledge areas under their edges. The latter habitat continued, with occasional larger outcrops to the end of the dive. Many of the fish seen were near, on or under the outcrops.

Dive ended abruptly because of derelict lines on bottom that could foul RCV. Just at the place where lines were encountered, the dive encountered the only elelines: at least 1 ehu and many onaga (unable to count in brief time on station). All were on or near a large outcrop feature, with a few other outcrops apparently close by, but a sandy substrate in general. Outcrops seemed capable of providing ~ good shelter, especially for juveniles. Some other taxa observed rather frequently included: S. maunaloae (especially near the end), scorpaenids (singly, throughout dive), Laemonema rhodochir (singly throughout), Antigonia spp. (mostly near end), a few eels (including C. oligoporus), a few morids, and P. berndti. Much apparently good habitat was seen; eteline snappers seemed to favor only a small portion.

RCV-066 dive began at 2215 at a point S and W of the best estimate of the line of boulders at a depth of 89 m. The RCV then moved on a generally ENE track at almost the same depth for the entire dive, ending generally N and E of the boulder line at 2237. The basic substrate throughout the dive was a relatively smooth, flat sandy plain with very little rubble or growth. The line of "boulders" was a long narrow feature, probably not > a few meters wide where the track crossed it. The boulders provided ~ 1-3 m of abrupt relief and provided some small holes and ledges, but no extensive cover was seen.

Before reaching the boulder line (~ 11 min.), the only fauna recorded was 2 of the "myctophid" fish and 2 anemones. At the boulder line, within ~ 5-6 min, fauna recorded: 1 opakapaka, 1 Seriola dumerili, 2 Naso maculatus, 1 Decapterus macarellus, 1 Albula sp.

The dive provided better confirmation of the location of the boulder line. Even though observations at the line were extremely brief, it is clearly on attractive feature for larger fish in an area that otherwise seems to support little fish fauna.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

Nothing new for these dives – RCV-065 and –066. The other dive planned for that night (a deeper dive* on an unexplored pinnacle nearby) was aborted when the RCV lost link with the ship and the problem could not be corrected on the spot.

* RCV-067

Recommendations for corrective action or improvement:

The RCV crew are still trying to isolate and repair the problem.

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

To a large extent, yes. The –067 dive would have been useful, but not essential.

List specimens or samples collected on the mission.

None

Dive RCV-065, 066

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

Evaluation of Non-lethal Methods for Assessment ..... (project title)

held on Sept. 26, 1999 (date) in the following way:

a. CTD data by Sept. 26, 2001 (date)

b. voice transcripts, video, and still camera film by Sept. 26, 2001 (date)

c. other Sept. 26, 2001 (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).

Robert B. Moffitt Principal Investigator