HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. RCV- 052, 053

MISSION STATUS

Location: E-W limb of 1st Finger, Penguin Bank; 052: Eastern half; 053: Western half.

Mission Date: Sept. 21, 99

Maximum Depth: 052: 260m; 053: 190m.

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 general physical geological characteristics and common, conspicuous flora and fauna, and characterize the properties of habitat for fishes where the fishes occur. Particular emphasis was placed on finding sites where taape (Lutjanus kasmira) and eteline native snappers occur, separately of together. For all commercial species of interest, we wanted to obtain some sense of their general density and distribution. All these results will contribute to assessment of potential interactions between taape and the etelines. A less critical objective is to identify other large, numerous of ecologically important animals that occupy the same of nearby habitats.

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-052 began at 1940 at a point near the middle of the E-W length of 1st Finger, P.B., on top of the feature near the southern edge at a length of 145 m. The RCV then traveled

E and a little N along most of the length of the eastern half of the feature, ranging from the top to ~ 100 m deeper on the S side. The top of the feature was mostly covered by sand, with varying amounts of underlying rock, rubble, and live and dead coral exposed, providing considerable shelter for small fish. Over the edge, slopes rapidly become very steep, with large boulders and nearly sheer cliffs. Apparently good habitat for eteline snappers, especially adults.

Bottom fish seen: 1 kalekale, early in transect, just over S. edge; 2 kalekale together ~ 10 min later in similar setting; 1 eteline snapper (lehi ?) seen in similar situation near end of transect. 1 ehu seen on steep southern wall at ~ 255m; 1 possible small kalekale near top.

Fishes seen frequently included: scorpaenids (very abundant, various habitat), the "myctophoid" black fish (less abundant than on most earlier dives), morids (in several shades of black to rusty red), a good many eels of the usual sizes and types (2 incidents of eels buried or burrowing in sand – probably A. bowersi).

Several probable Ariomma, Bembrops, several other fish spp. Seen seldom, e.g. Chramis struhsakeri, holocentrids.

A red emmelichthid with darker bars all around the girth was seen.

Unusual occurrence: An akule swimming ~ normally within ~ 1-2" above the bottom was apparently struck on or near the head, perhaps by an attacker for the sand below, bounced away swimming weakly and erratically for several seconds, lost equilibrium and dropped motionless on bottom.

RCV-053 began at 2258 at a point near the western end of the 1st Finger, P.B. on top of the feature near the southern edge at depth of 155 m. The RCV then traveled E and a little N to a point that overlapped the W end of the RCV-052 transect (but farther toward the northern edge), ranging from the top to ~ 40 m deeper on the N side. Near the start of the transect, the bottom contained large exposed carbonate features and 2 large gray fish were sighted on it immediately (probably eteline snappers). Along the length of the transect, there were often exposed, large rocky feature as well as much low rubble, coral, etc. Also considerable sand cover almost everywhere, including large sandy slopes and some wire coral. A good many caves, holes, ledges etc. to provide shelter for small fish. Many eteline sightings (some need confirmation): the 2 fish noted above. 2 kalekale a few minutes later, probable ehu and/or golden kalekale a few minutes later, 1 golden kalekale few minutes later, 3 golden kalekale ~4 min. later, 1 gindai ~ 13 min. later, 1 probable kalekale and 6 kalekale ~ 1 hour later (all 7 within ~ 3 min.). Possible snapper about mid-transect. Other fishes that were often seen included: scorpaenids (probably ≥ 2 spp.), Seriola dumerili (~ 3 to 10 present often).

Other fishes sighted occasionally included: Roa excelsa, priacanthid (maybe P. alalaua), few morids.

1 red emmelichthid with darker barred pattern (good video).

Overall, 1st Finger seems to have a good deal of good habitat on top for small fishes, and good habitat at the edges and down the steep rocky slopes seems to attract the shallower species and all life stages of eteline snappers.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

None.

Recommendations for corrective action or improvement:

N/A

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

Yes

List specimens or samples collected on the mission.

None

Dive RCV-052, 053

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. 21-22, 1999 (date) in the following way:

a. CTD data by Sept. 22, 2001 (date)

b. voice transcripts, video, and still camera film by Sept. 22, 2001 (date)

c. other Sept. 22, 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