HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. P5-372

MISSION STATUS

Location: Penguin Banks, West Molokai (2nd finger)

Mission Date: Sept.1, 1998

Maximum Depth: 404 m.

Project Title: Evaluation of non-lethal methods for assessment of overfished deep water snapper resources.

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Observer 2: Bruce C. Mundy

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

This dive was the sixth in a series intended to compare several visual techniques of censusing deep water snappers. On this dive, we returned to an area where earlier work had been done, with the intention of replicating 6 transects and 3 bait stations. We started within 300 meters of the transects from previous days. The small difference in location was fortuitous, allowing us to survey steep, rocky drop offs that had been missed earlier. But we also traveled along sub skid-paths from the earlier day's dives, along exactly the same paths as before. A transect and bait-station at 400 m found no snappers. A few ehu (Etelis carbunculus) were seen along 350m. Many (ca.20) ehu were seen at crevices of rocky promentories along 300 m but a bait station on soft sediment at that depth revealed none. Only one ehu was seen on the 250 m transect and only three gindai (Pristipomoides zonatus) were seen along 200 m. But over a dozen kalikali (Pristipomoides sieboldi), one gindai, one onaga (Etelis coruscans), and 8-9 ehu came to a bait station on a steep, rocky slope at the end of the 200 m transect. An extra bait station at 250 m was also highly successful, with 5-6 onaga, (ca.8) ehu, and several kalikali. At this station, an attempt was made to feed an ehu a squid containing a "dummy" acoustic tag. The fish took the squid but not the tag. This demonstrated the feasibility of the technique and also limitations of our tagging methodology; in this case, our tag was too large and our method of packaging the tag was inadequate. In general, this dive was highly successful in that it gave us good replication of earlier surveys, a good census of snappers where they were and weren't, and a bonus of allowing us to test tagging methodology.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

There were no failures on this dive. All planned work was completed with time remaining for an additional bait station. A failure of the navigation gyro aboard the K-o-K slowed the response time for requests for positions from the sub. but this did not adversely affect completion of the mission.

Recommendations for corrective action or improvement:

Should be repaired.

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

This mission achieved its purpose and more. We had planned fish-counting transects at 400, 350, 300, 250, and 200 m, as well as bait stations at 400, 300, and 200 m. These were completed by 1500 hours. This gave us time to do an additional bait station at 250 m, in an area where deep water snappers were numerous.

The success of this mission was due to superb piloting by Terry Kerby. He not only kept us on close transects along steep terrain, but also managed to set bait stations and take 1/2 hour observations at flat terraces, no larger than a kitchen table, on the steep terrain. He also used the sub's manipulator arm, with extreme dexterity to hand feed a squid containing a "dummy" acoustic transmitter to an ehu (Etelis carbunculus), testing the feasibility of doing this to its utmost !

List specimens or samples collected on the mission.

No specimens of samples were collected.

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 of... (project title)

held on Sept. 1, 1998 (date) in the following way:

a. CTD data by 9/1/2000 (date)

b. voice transcripts, video, and still camera film by 9/1/2000 (date)

c. other 9/1/2000 (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