BCNT NWHI

HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. RCV-017a,b,c

MISSION STATUS

Location: Mokuloa peninsula

Mission Date: 4-5, Sept. '98

Maximum Depth: 525m

Project Title: Evaluation of non-lethal methods for assessment of overfished deepwater Snapper resources.

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

The objective was to make a continuous set of observations of benthic habitat and fish and invertebrate fauna on transects of the "Mokuloa peninsula". Three transects were made, two on the western edge of the 300m plateau and one crossing the eastern edge. The ship towed the ROV cage at about 20 m off the bottom and the ROV operated between < 1m to 5m off the bottom. Tow speed ranged from .6 knot to 1 knot. The ROV was deployed at the start of the transect and fully retrieved at the end of each transect.

The first transect (RCV-017a) was made along the western edge of the 300m plateau, over the dropoff, and down to 525m on a northeasterly track. The track was intended to replicate the observation via submersible on dive PS-373. The transect began at 301 m on a hard carbonate bottom covered by a light sand/sediment layer, with small ledges and outcrops. Few soft corals were seen. Observed species included Scorpaenids, Plectranthias kelloggi, Symphysanodon maunaloae, Parabathus sp., Conger oligoporus, Lachnorema rhodochir, Antigonia sp., Physiculus rhodopinnis, Bembradium roseum, on the plateau area. Approximately 1 hour into the transect, the bottom became rocky, ledges and overhangs and etcline Snappers were observed.

9 or more small Etelis carbunculus, probably one Etelis coruscans, and probably one Randallichthys, were observed. As the depth increased and the ROV proceeded down a rocky slope, Beryx decadactylus, Polymixia berndti, Antigonia, Chrionema chryseres, morids, macrourids, soft corals, Heterocarpid shrimp, Nezumia propinqua, eels, and crinoids were observed. The first transect ended at 525 m over sand.

The 2nd transect began at 315m on a hard rock bottom overlain by sand and sediment. Surface relief was very low, limited to small crevices and shallow depressions. White/pink corals and wire corals were abundant on this plateau area, depth between 300 and 270 m. Various Parabothus sp., Haemonema rhodochon, Symphysanodon maunaloae, Bembradium roseum, Pyrosoma, salps, congrid eels, ctenophores, Chrionema chryseres, Plesiobatis daviesi, and Heterocarpus sp. were observed. The plateau transformed to a rocky slope with carbonate outcrops followed by a steep carbonate drop-off and then a sand slope. No eteline snappers were observed. The transect ended over sand at 418 m.

The 3rd transect attempted to repeat the first transect and followed a similar track approximately 100 m to the southeast. Similar terrain and species were observed, except that ~~very few~~ no Etelis sp. were encountered. Additional species observed included Glossanodon struhsakeri, Satyrichthys sp., Ariomma sp., Rexea nakamurai, Emmelichthys sp., and Caelorinchus sp. The 300m plateau gave way to a rocky slope, dusted with sand and sediment, with some ledges and outcrops. The transect ended at 356m on sand.

Dive RCV-017a, b, c

MISSION EVALUATION:

Limitations, failures, or operational problems noted:
None were encountered. Except that live audio commentary on the videotape was not recorded due to bad connection.

Recommendations for corrective action or improvement:
Improving the laser measurement system and provision of a sonar system for the ROV would improve estimation of observed sizes and locating terrain features.
Make sure that both audio and video are recorded properly.

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 achieved its purpose. The ROV pilots were very responsive to requests to zoom in on and photograph various fauna and features.

List specimens or samples collected on the mission.

none

Dive RCV-017

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 4-5 Sept 1998 (date) in the following way:

a. CTD data by 5 Sept 2000 (date)

b. voice transcripts, video, and still camera film by 5 Sept 2000 (date)

c. other 5 Sept 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).

Robert B. Moffitt Principal Investigator