HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. P4-072

MISSION STATUS

Mission Date: 10-31-02

Location (island, bank, seamount, etc): Oahu

Specific Site (NE side, summit, etc): Lanikai
Position (start latitude & longitude): 21°24.205,'N 157° 37.714'W
Depth range: 327-410 m

Project Title: : Effectiveness of refugia on bottomfish stocks

Principal Investigator: Robert Moffitt

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Observer 2: Jane Culp
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Scientific Data Acquired: Prepare an abstract outlining your objectives, techniques, findings, etc.

Materials & Methods:

The main objective of this study is to complete an evaluation of the effectiveness of DLNR's bottomfish management plan. This is being accomplished with a follow-up survey to our 1998 and 1999 studies, which provided baseline data on densities of onaga and ehu in two refugia and two adjacent control areas. This particular dive was conducted off Lanikai. Specific dive objectives were to assess bottomfish sizes and populations and survey the fish and invertebrate community at a known fishing site. A set of two thirty minute transects and two thirty minute bait station was conducted within the depth range of 300-350 meters, where most species of bottomfish occur.

Scientific data acquired:
We conducted two transects and two bait stations as planned. The drop point was on sediment with few carbonate outcropings. Very near the drop point we observed and videoed an Air Force package. From here we travelled up to 350 m. Along this transit we encountered steep manganese crusted carbonate walls covered with dendrophyllids, brisingids, Madrepora sp, and yellow crinoids. Many small Beryx decadactylus were seen on this run. The 350 m transect was conducted on a manganese covered carbonate bottom with a light sediment cover. Two small ehu were observed. On to move up slope to 300 m we observed approx 20 large Beryx decadactylus under a ledge with a large number of small Erythrocles scintillans. The 300 m transect was conducted on a manganese covered carbonate bottom with a light sediment cover, as well. A many small to medium sized ehu

(8-15”) and one onaga (approx. 20”) were observed. Symphysanodon maunaloae and Grammatonotus aggregated together in large numbers. The 315 m bait station, on sediment covered carbonate at the base of a short wall, attracted 3 ehu (8-20 inches), 1 onaga (24”), 2 Squalus mitsukurii, and approx 30 Erythrocles scintillans. The second bait station was conducted at 278 m on light sediment covered carbonate. We observed at least 8 onaga (5 were 12-24”, 3 were 30-36”), 4 ehu (12”), 4 Squalus mitsukurii, and 1 Conger oligoporus.

Table 1: Biological organisms observed during the dive.

FISHES	ECHINODERMS, CRUSTACEANS, & MOLLUSKS	CORALS, SPONGES & OTHER INVERTS
Ventrofossa atheradon?	Benthesicymus laciniatus	Dictaulus sp.
Bathycongrus aequoreus	Hymenaster pentagonalis	dendrophyllid –white fan
macrourid	Aspidodiadema sp.(collected)	Madrapora kauaiensis
Gadomus melanopterus	urchin (2 sp collected)	Madrapora oculata
gempylid	brisingid	Corallium regale
Polymixia japonica	crinoid - yellow	Corallium secundum
Rexea nakamurai	crinoid - white	alcyonacean – red, large
Cyttomymus stelgis	Stereocidaris hawaiiensis	Antipathes sp.
Squalus mitsukurii	Henricia sp	Anthomastus sp
Etelis carbunculus	Sphaeirodiscus ammophilus	Cirrhipathes spiralis
Chrionema chryseres	Munida plexaura	Corallium tortuosum
Pontinus macrocephalus	Paromola sp	Anemone
Scorpaenid	starfish	Lyrocteis sp.
Symphysanodon maunaloae	Shrimp	Antipathes sp 1
Epigonus sp.	Octopus sp	Bathypathes conferta
Plectranthias kelloggi	Pagurid	Gardinaria hawaiiensis
Bembradeum roseum	Benthesicymus lacinaiatus	Antipathes subpinnata
Beryx decadactylus		Regadrella sp 1
Erythrocles scintilans		Leiopathes glaberrima
Squalus mitsukurii		Pennatulid
Grammatonotus laysanus		Lepidisis olapa
Symphysanodon typus		White cnidarian - collected
Seriola dumerili		
Etelis coruscans		
Chaunax umbrinus		
Antigonia sp		
Conger oligoporus		
Sphenanthias sp		
Hollardia goslinei		

<u>Specimens collected:</u>

Aspidodiadema sp. 634 m
urchin sp 634 m
urchin sp 629 m
Hymenaster pentagonalis 629 m
White cnidarian (soft) 277, 278 m
Carbonate rock 278 m

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

Recommendations for corrective action or improvement:

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

All objectives were accomplished efficiently leaving additional time at the end of the dive for valuable specimen collection.

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

P4-072held on 11-02-02.

a. CTD data by 11-02-04

b. video data by 11-02-04

c. other_____(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