HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. RCV-183

MISSION STATUS

Mission Date: 09-28-02

Location (island, bank, seamount, etc): West St Rogatien Bank

Specific Site (NE side, summit, etc): Southeast side
Position (start latitude & longitude): 24°34.465'N /167°15.093'W
Depth range: 172-334 m

Project Title: Impact of Bottomfishing in the NWHI Coral Reef Ecosystem Reserve

Principal Investigator: Christopher Kelley

Address: Hawaii Undersea Research Lab
1000 Pope Rd.
University of Hawaii, Honolulu, Hi. 96822

Phone: 956-7437

Observer 1: Bruce Mundy
Address: NOAA Fisheries Honolulu Laboratory, 2570 Dole St., Honolulu, HI 96822

Observer 2: Rachel Shackelford
Address: Hawai'i Undersea Research Laboratory, 1000 Pope Rd., Honolulu, HI 96822

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

Materials & Methods:

The overall goal of this project is to obtain data on bottomfish populations and their habitat for use in evaluating the impacts of commercial fishing in the NWHI Coral Reef Ecosystem Reserve. This particular dive was conducted on W. St. Rogatien Bank. Specific dive objectives were to survey the fish and invertebrate community at a known fishing site. Particular attention was paid to corals and other attached invertebrates that would be vulnerable to damage from anchors and fishing weights. To accomplish this objective, the ROV was deployed along a track running through the coordinates provided for the site. Observers noted all fish, invertebrates, and fishing debris encountered.

Scientific data acquired:

The tow reached bottom at 205 m on the upper flank of the bank, where the substrate was uniform sand with rhodoliths. The fish seen were cryptic species that blended in well with the substrate, such as synodontids, scorpaenids, and bothids. Invertebrates observed were adapted to sand habitat, including sea anemones, urchins, mantis shrimp, and pennatulid sea pens. The tow took the RCV upslope to 172 m, over the same uniform substrate.

About 40 minutes through the tow, the RCV moved toward deeper water, starting at 186 m. Soon thereafter, a small group of rocks was encountered at 191 m. Numerous fish were seen around this rock, including several *Caprodon schlegeli* and *Chromis struhsakeri.* Eight kahala (*Seriola dumerili*) met the RCV at this time.

Moving toward deeper water (260 m), different fish and invertebrate species were seen, including *Antipathes* sp., pagurid crabs, a sea star, a *Neopilumnoplax* crab, *Rexea nakamurai,* and *Polymixia berndti,* although the substrate remained sand with rhodoliths. As the tow continued deeper to 312 m, eels, morids, and an ophidiid were seen. A school of ‘opelu (*Decapterus* sp., probably *D. tabl*) appeared at the periphery of the RCV’s lights and sporadically returned throughout much of the tow.

At 316 m scattered rocks emerged from the sand. The fauna was similar in familial composition to that seen between 260-316 m, although the species differed. The tow ended at 334 m, after two hours.

No bottomfish fisheries management unit species, manmade objects, or damage from fishing activities were seen during this tow.

Table 1: Biological organisms observed during the dive.

FISHES	ECHINODERMS, CRUSTACEANS, & MOLLUSKS	CORALS, SPONGES & OTHER INVERTS
Suezichthys notatus	*Echinocidaris hastigera*	Anemone, brown
Parabothus coarctatus	Stomatopoda, unidentified	Pennatulid, unidentified
Priacanthus alalaua	Shrimp on anemone, unidentified	Anemone, unidentified
Synodus sp.	Irregular urchin test, freshly broken	*Antipathes,* unidentified
Scorpaenidae, unidentified	Pagurid crab in gastropod shell	Anemone, white
Caprodon schlegeli	*Neopilumnoplax major*	*Lyrocteis* sp.
Synodus falcatus	Sea star, unidentified	Sponge, ribbon, white
Chromis struhsakeri	Crinoid, unidentified	*Pteroeides* sp. 1 (both red and tan types)

Seriola dumerili	Sea urchin, unidentified
Rexea nakamurai	Pleurobranch, black
Polymixia berndti	
Ophidion muraenolepis	
Physiculus rhodopinnis	
Gnathophis cf. *nystromi*	
Ariomma luridum	
Saurenchelys stylurus	
Carapidae – *Onuxodon* sp.?	
Decapterus tabl?	

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

No problems were encountered during this tow.

Recommendations for corrective action or improvement:

None

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 bottom was surveyed for the full two hours planned and excellent images were obtained of the habitat and it's fauna during this transect.

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

RCV-183 held on 09-28-02.

a. CTD data by 09--04

b. video data by 09--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