HAWAII UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT MISSION NO. P4-046

MISSION STATUS

Location: **Kahoolawe Island Reserve**

Mission Date: September 4, 2002

Maximum Depth: 439 meters

Project Title: Survey of Bottomfish Habitat in the Kahoolawe Island Reserve

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

This objective of this dive was the same as P4-042 through P4-045, which was to assess the abundance of bottomfish and characterize the associated benthic community in a reserve area off the south coast of Kahoolawe. To accomplish this, a set of four thirty minute transects and two thirty minute bait stations were planned to cover the depth range of 200-350 meters. The four transects were conducted at 340, 310, 260, and 210 meters. The two bait stations were conducted at 195 and 260 meters. This dive was a replicate of P4-045 and was therefore conducted in the same area as that dive. However, the transect depths and sites were shifted slightly to the east to cover primarily the eastern facing slope of the study site.

The submersible landed on the bottom at 397 meters and ran upslope to 340 m, the first transect depth. Between 397 and 340 meters, the substrate was primarily fine sediment with scattered pebbles. Extensive carbonate features were found between 340-200 meters on the east facing slope. The bottom part of these features consisted on large blocks and boulders which had apparently broken off from shallower formations. In addition, there appeared to be a type of breccia at 260 meters consisting of cemented basalt cobbles and boulders. Tremendous eroded carbonate formations were observed between 260 and 200 meters which created a large cavern, caves, and mini-pinnacles jutting out from the wall. Between 350-397 meters, the fauna observed included Sericopholus hawaiicus, Lyrocteis sp, Chlorophthalmus proridens, Synagrops argyrea, Bathyalcyon robusta, Ventrofossa atherodon, Chrionema chryseres, Satyrichthys engyceros. These species are typical inhabitants of this depth range. The following table provides the most of the fauna observed between 210-340 m during the bottomfish habitat transects. The most abundant fish species included S. maunaloae and Grammatonotus sp 1. The most abundant corals included C. niveum, Javania sp, and C.

spiralis an unidentified ballanophyllid, and an unidentified cnidarian, possibly a pennatulacean. The most abundant non-coral invertebrate was the urchin S. rufa. The 260 m bait station attracted only onagas (E. coruscans), ehu, and gindai.while the 195 m bait station attracted a large number (i.e. 30+) of opakapaka (P. filamentosus) as well as gindai and kahala.

Once the primary tasks were completed, the submersible descended to 439 meters to collect specimens of species for identification purposes. One gorgonian, Calytrophora japonica was obtained.

Fish	Invertebrates	Fishing and other debris
Chascanopsetta prorigera	Anthomastus fisheri	Anchor
Grammatonotus sp 1	Bathalcyon robusta	Anchor line
Synagrops japonicus	Cerianthid black	Cloth
Antigonia eos	Antipathes sp 1	Spent gunshell casing
Seriola dumerili	Cerianthid green	Bottles
Roa excelsa	Cirrhipathes spiralis	
Erythrocles scintillans	Cerianthid white	
Epigonus glossodontus	Calligorgia Formosa	
Rexea nakamurai	Corallium niveum	
Carcharhinus sp	Corallium secundum	
Pristilepis oligolepis	Corallium tortuosum	
Etelis carbunculus	Calyptrophora japonica	
Etelis coruscans	Narella megalepis	
Pristipomoides filamentosus	Pennatula finger	
Gymnothorax berndti	Eguchisammia fistula	
Gymnothorax nuttingi	Flabellum pavoninum	
Bembrops sp 1	Javania sp	
Parapercis roseoviridis	Gardineria hawaiiensis	
Chromis struhsakeri	Mursia hawaiiensis	
Cookeolus japonicus	Dynomene devaneyi	
Pontinus macrophthalmus	Munida brucei	
Poecillopsetta hawaiiensis	Paramunida hawaiiensis	
Epinephelus quernus	Paromola sp	
Holanthias elisabethae	Cyrtomaia smithi	
Liopropoma aurora	Randallia distincta	
Plectranthias kelloggi	Tamaria triseriata	
Symphysanodon maunoloae	Lyrocteis sp	
Symphysanodon typus	Acanthocidaris hastigera	
Canthigaster inframacula	Stylocidaris rufa	
Xylecyba myersi	Stylocidaris calacantha	

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

The dive went very smoothly except for the same problem with the zoom and exposure settings for the ROS camera. The latter again required the pilot to use the digital camera as the submersible's primary camera.

Recommendations for corrective action or improvement:

No recommendations since the operations staff are presently addressing the problem.

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 was very successful. We completed all intended tasks.

List specimens or samples collected on the mission.

Calyptrophora japonica?

Dive P4-045

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

_____(project title) held on 09-04-02 in the following way:

a. CTD data by 09-04-04

b. voice transcripts, video, and still camera film by 09-04-04

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