HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT (QLR) for *Pisces* and *RCV-150*

DIVE: ___P4-172_____

(*Extend length of sections as needed/appropriate*)

MISSION STATUS

Location: _Southwest Kahoolawe (KIR)_____

Latitude: ___20__° _29.103_____ **Longitude:** __156___° _40.166_____

Mission Date: __10/22/06_____ **Duration: __4__** hours ____ mins

Maximum Depth: ____274_____ meters

Project Title: Boundaries & bridges: effects of MPAs on deep slope snappers

Principal Investigator: Dan Polhemus/Walter Ikehara

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Observer 2: Christopher Kelley

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Pilot 1: Terry Kerby

Pilot 2: _____

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

Objectives:

1) Describe substrates located along known path of tagged opakapaka (Pristipomoides filamentosus)
2) Identify and quantify opakapaka and other bottomfish species and their potential prey species
3) Identify and quantify all other benthic fish and invertebrate species observed along the track route.

Observations, findings, etc:

The Pisces 4 descended to a depth of 274 m and landed on steep sediment covered slope. The sub then moved upslope to a depth of 150 m crossing a low relief carbonate outcrop at approximately 215 m that extended up to 180 m. A mixed school of opakapaka, kahala (Seriola dumerili), and Lehi (Aphareus rutilans) were observed on the outcrop, as well as small fish (Grammatonotus sp 1 and others), galatheid crabs (Munida brucei), and corals (Paracorallium tortuosum). Above the outcrop, the substrate became gently sloping sediment. The first 30 minute transect was carried out at a depth of 150 m to the west. The predominant fauna were urchins (Acanthocidaris hastigera and Stylocidaris rufa) and small unidentified yellow scleractinian corals (Flabellidae?). One specimen was collected. During the transect, dark substrate patches were observed that were found to be exposed clay deposits. The water visibility was relatively low. Two parallel partially exposed corroded cables were observed along with a small pile of rusted aluminum panels and other metal debris. No ordinance was observed. The sub subsequently descended back down the slope to a depth of 200 m and a second transect was conducted to the east. Sediment substrate was predominant during the first 10 minutes of the transect and very few fish and invertebrates were observed. The substrate during the remainder of the transect was a low relief carbonate outcrop. A large school of opakapaka mixed with kahalas, lehi, and a hammerhead shark (Sphyrna lewini) was observed over the outcrop. Benthic invertebrates seen on the outcrop included more small corals and galatheid crabs, a few wire corals (Cirrhipathes spiralis), urchins, and seastars. Several small groups of the deepwater aweoweo (Cookeolus japonicus) were also observed along with smaller potential prey fish. The location and depth of the outcrop coincided with areas where opakapaka were previously caught and implanted with transmitters. The outcrop appears to be an aggregation site for this species. No onaga (Etelis coruscans) were observed during the dive.

Observed Species list:

Fishes: Aphareus rutilans, Pristipomoides filamentosus, Seriola dumerili, unidentified fish on sand, Symphysanodon typus, Cookeolus japonicus, Sphyrna lewini, Dasyatis sp, Pristipomoides zonatus, Epinephelus quernus, Pristipomoides sieboldi, Grammatonotus sp 1, Symphysanodon maunaloa, Holanthias elisabethae, Chromis struhsakeri, Pristilepis oligolepis, Gymnothorax nuttingi, Gymnothorax berndti, Gymnothorax sp, unidentified blue fish (new anthiid or just a Grammatonotus sp 1), bothids, Bembrops sp 1, unidentified sand-diving fish, Synagrops argyrea, Caprodon unicolor, Chrionema squamiceps, Parapercis roseoviridis, Suezichthys notatus, Canthigaster inframacula, Torquigener sp.

Cnidarians: yellow cup coral (flabellid), Paracorallium tortuosum, Cirrhipathes spiralis, hydrozoans, cerianthid brown, Nidalia sp, cerianthid green,

Echinoderms: Actinocidaris hastigera, Stylocidaris rufa, Laganum fudsiyama, holothurian, ophiuroid,

Crustaceans: Munida brucei, Astropecten productus, Tamaria scleroderma, pagurid, Odontodactylus hawaiiensis, Dardanus sp, crab,

Mollusks: Terebra thaanumi?, Conus sp, Pleurobranchus sp 1, Octopus sp,

Sponges: tethyid knob, sponge mat,

Other Invertebrates: colonial salps, Lyrocteis sp,

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

Cable on Straza tower failed and the ship lost tracking for the submersible. The dive was aborted at 12 noon.

Recommendations for corrective action or improvement:

Cable will be fixed in the afternoon. If possible or if needed, more routine inspection of Straza tower.

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

Only 2 of 6 transects were completed therefore mission objectives were not completed. The two transects that were carried out were productive and a possible new species or new record of cnidarian was collected along with observations of snappers associating with hard substrate.

List specimens or samples collected on the mission:

One specimen was collected which is an unidentified single polyp cnidarian. It could be in the family Flabellidae.

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):

Boundaries & Bridges: Effects of MPAs on Deepslope Snappers

Held on October 22, 2006b in the following way:

a. CTD data by October 22, 2008

b. Video and images by October 22, 2008

c. Other October 22, 2008

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).

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Principal Investigator