HAWAI'I UNDERSEA RESEARCH LABORATORY

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

DIVE: RCV150-R352

MISSION STATUS

Location: Southwest Molokai

Latitude: 23 ° 02.7027 **Longitude:** 157 ° 10.8641

Mission Date: Oct. 25, 2006 **Duration:** 1 hours 30 mins

Maximum Depth: 337 meters

Project Title: Boundaries and Bridges: Efficacy of marine protected areas for deep-slope snappers

Principal Investigator: Dr. Daniel Polhemus*/Walter Ikehara**

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Observer 1: Christopher Kelley **Observer 2:** Dan Polhemus

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Pilot 1: Dan Greeson **Pilot 2:** Pete Townsend

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

Objectives:
1) Characterize "habitat bridges" as a potential mechanism to facilitate movement of adult bottomfish species from bottomfish restricted fishing areas into adjacent exploitable areas.
2) With input from a companion tagging and tracking study, observe opakapaka and onaga associated with the areas where habitat bridges may link protected areas and adjacent exploited areas.
3) Develop methodologies for introducing acoustic tags to selected bottomfish at depth in situ using a manned submersible.

Observations, findings, etc:

Because of bad weather conditions, this dive was conducted on a bottomfish habitat site southwest of Molokai. The two objectives were to 1) assess the area as an alternate dive site in the event poor weather continued and 2) examine the substrate and biological community of an area that would have to be transited by bottomfish migrating between Penguin Bank and other habitats south of Molokai. The ROV began the transect at a location where bottomfish had been caught during a previous fishing survey. The substrate along the transect was a mix of relatively low relief, sediment and rocky terrain changing suddenly into high relief carbonate outcrops and ledges. Bottomfish would therefore have to transit over both preferred and non-preferred substrate during movement patterns to and from Penguin Bank. A number of known prey species were observed on the transit although none in particular abundance.

Observed Species list:

Fish: Saurenchelys stylurus, Polymixia sp, scorpaenid, Bembrops filifera, morid, Pyramodon ventralis?, Physiculus grinelli, Antigonia eos, ophichthid, congrid, Symphysanodon maunaloa, Chrionema squamiceps, Gnathophis sp, Epigonus sp.Epigonus devaneyi, Parabothus coarctatus, Snyderidia canina, congrid white fin, Hoplostethus crassispinus, Chrionema chryseres, Pontinus macrocephalus, Malthopthis jordani, Physiculus sterops, Etelis carbunculus, Chascanopsetta chlorospilis, Bathycongrus vicinus

Echinoderms: Stereocidaris hawaiiensis?, seastar, Plinthaster ceramoides?, echinothurid red, Micropyga tuberculata, Anseropoda insignis Stylocidaris calacantha

Cnidarians: scleractinian solitary white, Javania lamprotichum, Anthomastus fisheri, Bathypathes sp?, Cirrhipathes spiralis, Antipathes sp 1, Nemanthus sp, caryophyllid, Corallium sp., Nidalia sp., Veretillum sp., Eguchisammia serpentina?, Eguchisammia fistula, Actinoscyphia sp 2, hydrozoans, Corallium niveum, Fanellia sp??, Corallium lauensis, green cerianthid

Mollusks/bivalves: bivalves, dead pectin shells,

Crustaceans: Plesionika sp., Heterocarpus ensifer, latreillid, pagurid, red shrimp, Benthysicymus laciniatus, unidentified crab

Other Invertebrates: Lyrocteis sp, tube worn or cerianthid,

Man-made Objects: None

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

Poor weather and sea conditions prevented the deployment of the ROV in the Kahoolawe Island Reserve. Several alternative sites were investigated and rejected. Finally an alternate potential bottomfish habitat site well north of the Kahoolawe Island Reserve was and the ROV was deployed to obtain data on habitat characteristics and community structure.

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:

Despite the fact that the dive could not be conducted in the reserve, excellent video and closeups were obtained in a bottomfish habitat site. The mission was therefore considered a success.

List specimens or samples collected on the mission:

1 Symphysanodon maunaloae came up with the ROV

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 and Bridges: Efficacy of marine protected areas for deep-slope snappers

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Held on Oct. 25, 2006 _____ (date) in the following way:

a. CTD data by Oct. 25, 2008 _____ (date)

b. Video and images by Oct. 25, 2008 _____ (date)

c. Other Oct. 25, 2008 _____(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).

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Principal Investigator