HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT
DIVE: P4-226

MISSION STATUS

Location: Pueo Pt. Pinnacle, Niihau

Latitude: 21° 49.665' N **Longitude:** 160° 03.924' W

Mission Date: Dec 1, 2009 **Duration:** **8** hours mins

Maximum Depth: 378m

Project Title: Bottomfish Habitat Survey and Movement: Value and Effectiveness of State Restricted Fishing Areas and Fishery Effects on Precious Corals

Principal Investigator: Chris Kelley

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Observer 1: Chris Kelley
Address:
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Observer 2: Jeff Drazen
Address:
Department of Oceanography
University of Hawaii

Pilot 1: Terry Kerby **Pilot 2:**

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

Objectives:

The objective of this project was to conduct three submersible dives and ROV transects on a guyot and two pinnacles off with west coast of Niihau. This location is actively fished for eteline snappers and other deep living bottomfish species. The guyot is within a restricted fishing area but the other pinnacles are not. The site is an active research area where the distribution and size frequency of bottomfish is being assessed using baited camera stations (Botcam) and where fishes are being tagged with acoustic transmitters to assess movement patterns in relation to habitat features.

The purpose of the submersible dives was to conduct visual trasnect surveys for lost fishing gear and to identify any benthic invertebrate beds that could be vulnerable to damage from anchors and fishing weights. It's expected that a greater quantity of lost gear will be found on the pinnacles in comparison to the guyot, which lacks a small summit where fishing effort is typically concentrated. Invertebrate surveys will primarily be

looking for gorgonian beds, particularly *Corallium* sp, as well as deepwater scleractinians and antipatharians known to occur in bottomfishing depths.

Observations, findings, etc:

We performed a submersible visual transect from the north side of the Pueo Pt pinnacle over the summit and down the south side. We then proceeded to the west in the saddle between the pinnacle and the guyot to the south. A horseshoe shaped rise in this saddle was also surveyed. Several rocks, corals and sponges (see below for list) were collected to validate visual identification of megafauna and to provide material for the taxonomic work of collaboraters.

Species list:

Sponges
Small yellow and white sponges
Regadrella sp. 1
Large brown circular sponges

Corals and other Cnidarians
White primnoid fans
Calyptophora sp. 2
Narella gigas
Eguchipsammnia
Cup corals
Small fan like Sytlasterids
Telmatactis anemone

Other invertebrates
Stylocidaris rufa
Stereocidaris hawaiiensis
Stylocidaris calacantha
Spheriodiscus
Anseropoda insignis
Antedon yellow
Brown comatulid crinoids
Tenella spp.
Small white asteroids
Gastropods
Plesionika sp.
Plesionika “red head” – with Telmatactis anemone
Geryonid crab
Paramola japonica
Pagurid crabs

Fishes
Etelis coruscans
Etelis carbunculus
Pristipomoides sieboldi
Erthryocles sp.
Seriola dumerili
Pontinus macrocephalus

Setarches guentheri
Scorpaena spp.
Antigonia eos
Roa excelsea
Odontanthias elizibethae
Symphosanadon maunaloa
Grammatonotus round tail
Grammatonotus diamond tail
Epigonus spp.
Glossandon
Draconetta xenica
Chrionema chryseres
Chascanopsetta sp.
Parapercis roseoviridis
Plectranthias kelloggi
Suezichthys notatus
Pseudanthias fucinus

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

Prior to the dive the hydraulic controller on the sub failed. This postponed our launch till shortly after 9am. The situation was fixed by replacing the faulty controller with one from the PICES 5.

Recommendations for corrective action or improvement:

Have a complete set of spares on hand for future operations.

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

Yes the dive accomplished its mission. We successfully completed our visual transect, evaluated the magnitude of fishing gear impacts, and identified areas of dense coral cover over the seamount.

List specimens or samples collected on the mission.

In order of collection
Basalt at base of pinnacle
Purple antipatharian fan
Lyrate shaped primnoid coral – Calyptophora sp2
Two small Stylasterid coral branched fans on carbonate rocks – one white, one yellow
Round brown sponge
Basalt at top of pinnacle
Cirripathes coral
White primnoid fan coral
Two small Eguchipsamnia corals

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_____(date) in the following way:

a. CTD data by_____(date)

b. video and images by_____(date)

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