HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT
DIVE: RCV 397

MISSION STATUS

Location: Brooks Bank (NWHI)

Latitude: 23° 59.1 **Longitude:** 166° 44.4

Mission Date: Nov 11, 2007 **Duration:** 2 hours 22 mins

Maximum Depth: 542 m

Project Title: Paleoceanography in deep-sea corals (ROV survey)

Principal Investigator: Dunbar R.B.

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Observer 1: T. Guilderson **Observer 2:** R. Dunbar

Address:
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Address: GEES, Stanford

Pilot 1: Dan & Pete

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

Objectives:

ROV transect is to determine deep-sea coral species distribution and potential target individuals for later collection

Observations, findings, etc:

1852: 539m – ROV observing: coarse pebbly material on tan, weathered carbonate hardground. Gentle incline w. scattered small (1-2m) boulders/rocks. Reasonably barren of life. Screaming (for the ROV) current – explains the lack of sand or finer sediment.

1902: 539m – first (tan weathered carbonate w. dissolution features) rock w. macrofauna – possibly Dendrophyllidae (*Enallopsammia rostrata)* and a few small glass sponges. Fly by – hard to tell if Dendrophyllidae was alive – if it were actually this (too shallow).

1903: 535m Macroinverts on bottom: histocidarcis. Bottom hardground has appearance of meterscale wave features.

1904: 534m – multiple clusters of rocks w. abundant life: Antipharians, Corallium, Paragorgia sp 1, Calyptophora and Callogorgia.

1908: 526m – much more abundant individuals on rocks and some on hardground. Low diversity but high abundance. Numerous in situ fossil bamboo stalks on rocks.

1917: 507 – same as before, first good sized star lounging in or feeding on a Corallium, sea pens too.

1922: 492m – same species diversity, more frequent individuals attached to hardground. Cobble sized debris.

1924: 489m – first (observed) eel like fish –having a hard time w. the current too. Gadella orPhysiculus.

1929: 483m – more of the same, back to 1-2 m rocks. Lipped vase sponge in addition to the usual suspects: Corallium spp., Paragorgia sp1, antipitharians, and the regular primnoids.

1934-1936: several anthomastus (fisheri), perhaps an increase in the number of primnoids (rem this might be a field of view artifact)

1941: 461m - apparent increase in primnoids continues and Paragorgia sp 1

1942: 458m – looks like going over small ~1-2m step, drops back to ~461m and then gently inclines. Similar species diversity – same cast of characters.

1945: 455m, add blue paramucea and charynx to obs list

1948: 450 Limonea ?

1955: 439m – 1m or more fishy fish – lower abundance of ground cover

1957: 432m – first observed Gerardia

2005 - 2015: KOK propulsion system goes offline.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

KOK propulsion system failed.

Tether of ROV looped around cage.

Recommendations for corrective action or improvement:

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

Yes we met the objectives.

List specimens or samples collected on the mission.

N/A

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