HAWAI'I UNDERSEA RESEARCH LABORATORY

QUICK LOOK REPORT
DIVE: P4-228

MISSION STATUS

Location: Middle Bank, NWHI

Latitude: 22 44.431 N **Longitude:** 161 09.873

Mission Date: 12/03/09 **Duration:** 9 hours mins

Maximum Depth: 1453 m

Project Title: Megafauna of Deep Seamounts and Ridges in the NWHI Monument Year2

Principal Investigator: Christopher Kelley

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Observer 2: Heather Ytilo-Ward
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Pilot 1: Terry Kerby

Pilot 2:

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

Objectives: The goal of this project is to census fish and invertebrate species in two under-surveyed but potentially high diversity habitat types: seamounts and submarine ridges, found inside the monument with the bathyal zone of 200-2000 m. The study site is a submarine ridge and pinnacle extending west of Middle Bank. These two dives will constitute the first assessments on this bank. The first dive will be located at a small pinnacle on the western face of Middle Bank. This dive will focus on collecting potential new species for taxonomic analysis in concert with a cursory census of the fish and invertebrates. The second dive will be dedicated to surveying a large ridge adjacent to the pinnacle surveyed in the first dive. All fish and invertebrates encountered will be identified and counted by the two observers. Both high definition and standard video cameras will record video as well as the audio records from each of the observers. A laser scale mounted on one of the cameras will provide the means by which to obtain size data. After the submersible is recovered, the ROV will be used to conduct 1-2 video transects. Observers in the ROV control room will make initial identifications of fish and invertebrates during the dives. Following these dives, the seabeam multibeam sonar system will be used to complete as much of the mapping of the ridge and surrounding features as possible.

Observations, findings, etc

The submersible reached the bottom at 1437m. From that point to the top of the pinnacle at 1323m, observers found sparsely inhabited terrain composed of basalt rock walls and large boulders. The area was dominated by many species of sponges while relatively few fishes and corals were observed along the pinnacle. These data along with

subsequent dives will provide the means to conduct an analysis of the animal communities on this feature at the meso-habitat scale.

Species list:

Cnidarians
Hormathiids
Anthomastus steenstrupi
Actinoscyphia
Actinostolid tan
Bathypathes alternata
Acanthogorgia
Chrysogorgia geniculata
Chrysogorgia sp.
Iridogorgia magnaspiralis
Metallogorgia melanotrichos
Corallium sp.
Corallium lauense
Lepidisis
Isidid branched
Isidid sp.
Paragorgia dendroides
Calyptrophora sp.
Narella alata
Narella sp.
Narella dichotoma
Narella macrocalyx
Candidella gigantea
Solandaria
Tubularid
Anthoptilum grandiflorum
Halipterus
Cup coral

Sponges
Bolosoma sp 1
Hertwigia
Regadrella sp 1
Walteria flemmingi
Walteria leukarti
Walteria sp. 3
Walteria sp. 4
Heterochone paddle
Chonelasmatinid leaf
Chonelasmatinid ribbon
Chonelasma vase
Endorete
Lefroyella decora
Farrea occa
Unknown sponge -Farrea hairy?
Platylistrum platessa
Poliopogon sp. 3
Pheronematid sp. 2

Sponges Cont'd
Semperella shultzei
Semperella sp. 2
Trichasterina petal
Stylocordyla borealis
Sponge fringed

Crustaceans
Chirostylids
Aristeus semidentatus
Swimming shrimp (drunk and sober)
Nematocarcinus tenuirostris
Heterocarpus laevigatus
Aristaeopsis edwarsiana

Fishes
Macrurid
Coryphaenoides sp. 2
Unknown Coryphaenoides
Aldrovandia phalacra
Unknown macrurid
Conger eel
Apristurus
Bathytyphlops marionae

Echinoderms
Unknown starfish
Astenactis papyraceus
Hymenodiscus
Atelecrinus conifer
Comatulid brown
Comatulid yellow
Hyocrinid
Aspidodiadema hawaiiensis
Sperosoma obscurum
Echinothuroidea
Caenopedina hawaiiensis
Synallactid
Gorgonocephalid
Zoroaster
Ceramaster bowersi
Hymenaster pentagonalis

Mollusks
Heliocranchia

Other
Octacnemidae

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

1) HD camera stopped taping near end of dive

Recommendations for corrective action or improvement:

1)

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 needed to reach the 1300m pinnacle for this dive to be successful, which we did. We also collected some potentially very valuable specimens.

List specimens or samples collected on the mission.

1 Metallogorgia melanotrichos
2 Unknown sponge, somewhat resembles a Farreid
3 Unknown coral, looks like either a Paragorgia or a Corallium
4 Lepidisis red
5 Cup coral
6 Unknown Corallium
7 Unknown Chrysogorgia, might be stellata
8 Lepidisis branched
9 Solandaria
10 Pheronematid like sponge
11 Unknown Chrysogorgia
12 Bathypathes alternata
13 Acanthogorgia
14 Primnoid, resembles Narella macrocalyx
15 Basalt rocks (2)
16 Branched isidid

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 P4-228 (Megafauna of Deep Seamounts and Ridges in the NWHI Monument Year 2)

held on 12/03/09 (date) in the following way:

a. CTD data by 12/03/09 (date)

b. video and images by 12/03/09 (date)

c. other 12/03/09 (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